AMENDMENTS TO THE SPECIFICATION

In the specification in the section DETAILED DESCRIPTION OF THE INVENTION, please delete the paragraph [0027] as shown with strike-through and substitute with the amended paragraph [0028] presented below immediately after the strike-through version.

~~The invention relates to scientific findings of the surface plasmon resonance (SPR) enhanced interaction between metal nanoparticles and nearby molecules, which were published in few scientific reports (M. Kerker, "Optics of colloid silver", *J. Colloid Interface Sci.* 105, 298 (1985); Lakowicz et al, "Intrinsic fluorescence from DNA can be enhanced by metallic particles", *Biochem. Biophys. Res. Comm.* 286, 875 (2001); Gryczynski et al., "Multiphoton excitation of fluorescence near metallic particles: enhanced and localized excitation", *J. Phys. Chem. B*, 106, 2191 (2002)). In these reports, researchers used the fluorophores (mostly organic laser dyes) to visualize or test the SPR-enhanced interactions. Their studies show that the fluorescence intensity of the fluorophores located nearby metal nanoparticles can be enhanced by a factor as high as ~10^{4} with one-photon mode of excitation and ~10^{8} with two-photon mode of excitation, and Raman signal for fluorophores which are in contact with metal nanoparticle can be enhanced by ~10^{14} (M. Moskovits: *Rev. Mod. Phys.* 57, 783 (1985); T.L.Haslett, L. Tay, M. Moskovits: J. Chem. Phys. 113, 1641 (2000), and references therein; K. Kneipp, Y. Wang, H. Kneipp, L.T. Perelman, I. Itzkan, R.R. Dasari, M.S. Feld: *Phys. Rev. Lett.* 78, 1667 (1997); Gryczynski et al., "Multiphoton excitation of fluorescence near metallic particles: enhanced and localized excitation", *J. Phys. Chem. B*, 106, 2191 (2002)). The observed SPR-enhanced interaction of metal nanoparticles with fluorophores was also~~

~~associated with intense decomposition of fluorophores when fluorophores where at a distance of 20 nm or less from metal nanoparticles (Ditlbacher H. et al., *Appl. Phys.* B 73, 373-377 (2001)).~~

This invention ~~expands the above scientific findings to~~ provides a new method of [[a]] surface plasmon resonance enhanced ~~interaction~~ interactions of metal nanoparticles with biological substances that leads to increased biochemical/biophysical modifications or destruction of biological substances. In the proposed method, a biological substance located within plasmon fields of a plasmon excited metal nanoparticle undergoes enhanced interactions with the plasmon fields and/or with the metal nanoparticle. These plasmon enhanced interactions are few orders of magnitude higher than it would be interactions of the biological substance with a non-plasmon excited metal nanoparticle, and the biochemical/biophysical modifications or destruction of the biological substance can occur without the direct contact of the biological substance with the metal nanoparticle. Biological substances considered in this invention are: a biomolecule, bacteria, living tissue, cells, virus, human body, animal body, and other living biological species.